



FAA-E-2165
December 16, 1964
SUPERSEDING
FAA-R-1178c
July 23, 1962

FEDERAL AVIATION AGENCY SPECIFICATION

JACK BOX, AIR-GROUND CONSOLE

1. SCOPE

1.1 Scope.- The equipment specified herein consists of a panel with two jacks, connector plug, and a potentiometer. The jacks accommodate a headset (microphone and earpiece) or a separate microphone and/or headset.

2. APPLICABLE SPECIFICATIONS

2.1 FAA specifications.- The following FAA specifications, of the issues specified in invitations for bids, requests for proposals, or contracts, form a part of this specification:

FAA-R-777 Electronic Equipment, General Specification

FAA-R-1272 Instruction Booklets, Electronic Equipment

2.2 Federal Standard.- The following Federal Standard, of the issue in effect on date of invitations for bids or requests for proposals, forms a part of this specification:

Federal Standard No. 595 Colors

3. REQUIREMENTS

3.1 Equipment to be furnished by contractor.- Each equipment furnished by the contractor shall be complete in accordance with all specification requirements. One twin plug P2 and one connector P1 shall be furnished with each complete unit. Instruction booklets shall be furnished in accordance with FAA-R-1272.

3.2 Definitions, interior and exterior surfaces.- The interior and exterior surfaces of the enclosure are defined as follows:

3.2.1 Exterior surfaces

Outside of dust cover
Front of front and rear of rear panel
Top side, all edges and underneath surfaces of mounting plate not enclosed

3.2.2 Interior surfaces

Back side of front panel, front side of back panel
and all edges of both panels
Enclosed portion of mounting plate
Enclosed portion of dust cover

3.3 Jack box.- The jack box shall be designed in accordance with the style as shown in Drawing DR-C-40030-15D. The jack box enclosure shall be of four-piece construction: a mounting plate of 0.064 inch aluminum, a front and rear panel of 3/16 inch solid aluminum, and a 1/32 inch (approximately) aluminum dust cover as shown in detail "A" of the above drawing. The spacing between J2 and J3 shall be such that the twin plug P2 can be inserted into these jacks.

3.4 Construction.- The contractor shall adopt dimensional tolerances which will ensure fit of parts in assembly and a smooth close fit of the cover. It shall be the contractor's responsibility to check the accuracy of the basic dimensions before manufacturing the parts in production quantities. However, before deviating from the specified requirements, the contractor shall obtain written approval of proposed changes from the Government. Components shall be arranged in the relative positions as shown in Drawing DR-C-40030-15D.

3.5 Exterior finish.- Exterior surfaces of the jack box shall be finished with baked enamel of a smooth matte texture; color brown to match Color No. 30372 of Federal Standard 595.

3.6 Interior finish.- All interior surfaces of the jack box shall be finished in accordance with FAA-R-777, paragraphs 3.14.2 to 3.14.2.3.

3.7 Components

<u>REFERENCE DESIGNATION</u>	<u>NOMENCLATURE</u>
P1	Amphenol connector No. 26-4301-16S, or equal (see 3.9)
P2	Twin plug, special (see 3.8)
J1	Amphenol receptacle No. 264401-16P, or equal (see 3.9)
J2	Jack, telephone, Western Electric No. 248A, or equal (see 3.10)
J3	Jack, telephone, Western Electric No. 226A, or equal (see 3.10)
J4	Receptacle, panel mounting, to fit Amphenol No. 91-MC4M plug
R1	Potentiometer, composition, 5000 ohms, 2 watts, CW rotation, log A taper; Allen Bradley No. J-42321, or equal

3.7.1 Knob.- The control knob for R1 shall be in accordance with FAA-R-777.

3.8 Plug P2.- The plug P2 shall be a twin plug, Western Electric No. 289B, or equal, modified as follows: One plug shall be a Western Electric No. 309, or equal; the other shall be a No. 347, or equal. When viewing the plug from the rear, with cord hook on the bottom, the No. 309 plug shall be on the left.

3.9 Connectors.- Receptacle J1 shall be mounted on the rear panel, off center. A mating connector P1 shall also be furnished. These connectors shall be barrier polarized with latch type keyed shells.

3.10 Jacks.- Jacks J2 and J3 shall be mounted so that they are electrically above ground. The type of material used for the insulating blocks shall be mica filled phenolic.

3.11 Nameplate.- A nameplate in accordance with FAA-R-777, and reduced in size to fit the available space, shall be mounted on the side of the jack box. The nameplate title (3.23.1, FAA-R-777) shall be **AIR-GROUND CONSOLE JACK BOX.**

3.12 Identification plate.- An identification plate shall be mounted on the front panel, centered horizontally and spaced 1/32 to 1/64 inch from the top edge. It shall carry only the type designation and serial number of the unit. In material and marking, the identification plate shall be the same as the nameplate. Dimensions shall be a maximum of 2 inches long and 1/4 inch wide.

3.13 Designation plates.- Three designation plates shall be mounted on the front panel of the jack box in the relative position shown in Drawing DR-C-40030-15D.

3.14 Use of "equal" components.- The Government has no objection to the use of a manufacturer's components other than those listed herein. The components shall be in accordance with FAA-R-777, paragraph 3.2.4 to paragraph 3.2.10 inclusive. However, the contractor, in substituting such components, shall give careful consideration to space requirements. It is further required that if an electrical connector other than that listed herein is substituted by the contractor, the substituted connector shall be physically and electrically interchangeable with that connector listed herein.

4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 Type test.- None required.

4.2 One time test.- None required.

4.3 Production test.- Each unit shall be production tested as follows:

- A. Insert plug P2 into J2 and J3 to insure proper fit.
- B. By using an ohm meter, determine that J2, J3 and J4 operate, and are wired to their respective lugs on connector J1. Also check connections and operation of R1.

5. PREPARATION FOR DELIVERY

5.1 General.- See FAA-R-777.

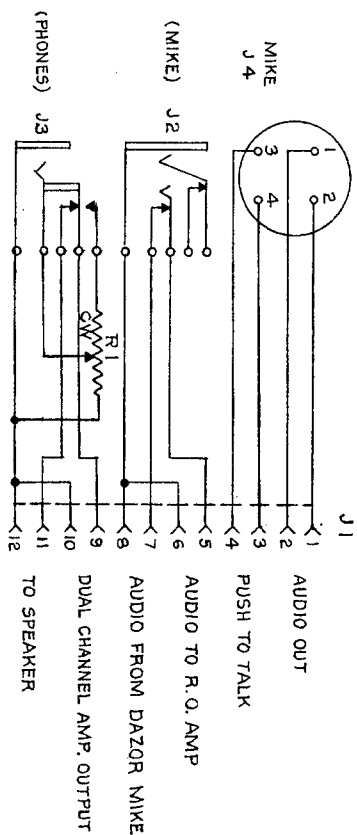
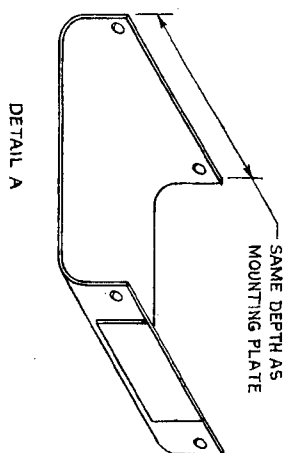
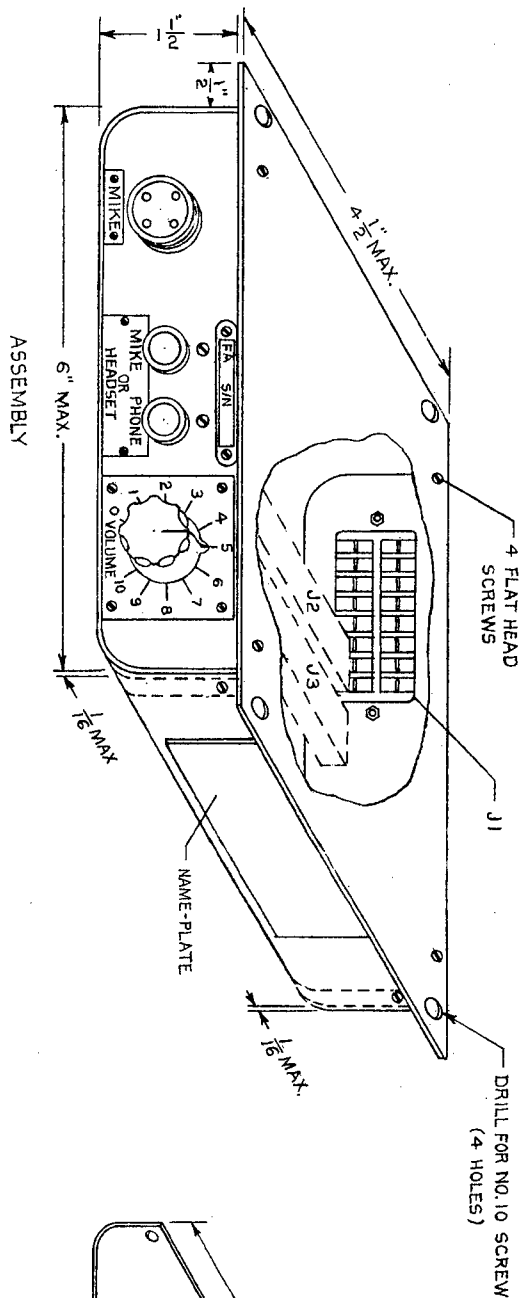
5.2 Individual packing.- Where two or more units are packed in a common shipping container, each unit with its accessories shall be packed and marked so that it can be identified and reshipped individually without re-packing.

6. NOTES

6.1 None.

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ATTACH: DR-C-40030-15D



SCHEMATIC

NOTES
1. THIS DRAWING IS NOT COMPLETE WITHOUT SPECIFICATION FAA-E-2165

2. FLAT HEAD SCREWS SHALL BE USED ON MOUNTING PLATE

3. WIRING TO BE IN ACCORDANCE WITH SCHEMATIC

REVISION	REVISED NOTES	DATE	BY	APP'D	DEPARTMENT OF COMMERCE NAVY AERONAUTICS ADMINISTRATION COMMUNICATIONS ENGINEERING DIVISION
D	PI CHANGED TO J1	11-23-58	7248		AIR-GROUND CONSOLE
C	PI CHANGED	11-23-58	7248		JACK BOX
B	PI CHANGED	11-23-58	7248		
A	J2 & CIRCUIT CHANGED	10-28-58	7248		

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